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To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and improve the character of the service rendered to the public.

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NEUTRALITY LAWS.

When a nation proclaims its neutrality in time of war it means that it will stand aloof from the belligerents as much as possible. It has the right to forbid the supplying of certain articles to either belligerent in its ports, and to regulate the supply of unprohibited articles. It can enforce respect for the neutrality of its own waters.

It has been common practice if a ship of one belligerent follows another into a neutral port, not only to prevent an engagement, but to prevent the departure of the pursuer from port until 24 hours after the pursued has left. A neutral power is under obligation to prevent a belligerent vessel from arming itself in its ports, or from using them as a base of operations or to fit out a warlike expedition.

The Alabama claim was based upon a violation of this rule. No armed assistance can be given to either belligerent and both must be treated impartially. Neutral powers must not supply either belligerent with money or instruments of warfare. Coal may now be considered a munition of war. It must prevent its citizens from joining the expeditions of either belligerent or from accepting letters of marque from either. It must make reparation to belligerents who may have been specifically injured by failure on its part to perform the duties of neutrality.

LIGHT-HOUSE SUPPLIES.

The Light-House Board Saturday awarded contracts for supplies for the eleventh-light-house district for the fiscal year ending June 30, 1899, as follows: Provisions, Robert McMillan, Detrot, $45.31 per man per annum on vessels; $24.93 per man per annum at stations. Coal—Pittmans & Dean Co., Detroit, anthracite $5.40 per ton; bituminous $2.25 per ton; buoy service, St. Mary's river and Hay Lake channel, Berridge & Gustin, West Bay City, $2,239; Portage Lake and river, Joseph Croze, Houghton, $600; Saginaw river, E. A. Gustin, West Bay City, $224.

GROSSE POINT RANGES.

There have been a number of groundings on Grosse Point already this season, and Lieutenant Commander Kennedy, U. S. N., light-house inspector of the eleventh district, suggests that the changes that have been made in the lights in that vicinity since last season may be the cause of the trouble. There are two less pile lights or beacons alongside the channel than were there last fall. The gas buoy where the vessels turn into the narrow channel coming down is in its old position and the beacons and buoys at the lower end, but the general axis of the channel is now determined by range lights set below. It is quite possible now by misjudging the turn at the gas buoy a little, giving it too wide a berth in coming down, to send a vessel hard aground on the muddy bank of the channel.

Commander Kennedy is quoted as saying that the change in lights was made against his recommendation. If the marine men find the new arrangement unsatisfactory and register a kick, they will have his cordial assistance in restoring the old lights. The light-house tender Marigold is now at the Sault, placing the gas buoys in the Hay Lake and other channels of that locality.

THE VIRGINIUS INCIDENT.

The "Virginius Incident", which has frequently been referred to of late, was the seizure upon the high seas of the American steamer Virginius, while conveying men and arms from New York to the Cuban insurgents, by the Spanish gunboat Tornado, October 31, 1873. The steamer, which had American papers and was flying the United States flag at the time, was taken to Santiago, where 53 of the 155 men on board were shot. The others were saved by the timely arrival of the British warship Niobe, whose commander, Sir Lambton Lorraine, interferred in the name of humanity. The Virginius was built in England for use as a blockade runner during the war of the rebellion. She was captured and sold by action at Washington to John F. Patterson, of New York, but it afterwards appeared that Patterson was not the bona fide owner, having purchased the vessel for the Cuban Junta. The Virginius was finally surrendered to the United States authorities, and on her way to this country she was lost in a storm off Cape Fear.

KAISER WILHELM DER GROSSE.

The Kaiser Wilhelm der Grosse has the distinction of being the largest vessel afloat, and she may also claim the record for speed on the Atlantic. She is essentially a German product. She was built at Stettin by the Vulcan Co., which has turned out for the North German Lloyd Co., such vessels as the Kaiser Wilhelm II, the Havel and the Spree; and for the Hamburg-American Co., the Augusta Victoria and the Furst Bismarck.

The Kaiser Wilhelm der Grosse is built of steel. She has a straight stem, and an elliptical stern, and has four funnels, placed in two groups and two masts. The hull is fitted with bilge keels to minimize rolling, and in regard to strength and scantlings, in accordance with the requirements of the German Lloyd. The vessel's displacement at load draught is no less than 20,000 tons, which is about 33 per cent. above that of the largest vessel in the British Navy. Her gross tonnage is about 14,000 tons. This is 1,000 tons more than that of the big Cunarders. The ship being 648 feet in length over all, is 24 feet longer than the Campania. She is 66 feet beam, and 43 feet deep from keel to main deck. Her great hull is divided into seventeen compartments by sixteen transverse bulkheads, and there are longitudinal bulkheads between the two sets of engines. The vessel has a double bottom for her entire length, and her boilers are placed in four separate compartments, so as to ensure, as far as possible, that no stranding or collision shall deprive the propelling machinery and pumps of a due supply of steam.

The machinery consists of two sets of triple-expansion engines, balanced on the Schlick system. Each set contains a high pressure cylinder 52 inches in diameter, an intermediate of 89¾ inches, and two low pressure cylinders of 96½ inches each. The stroke is 69 inches. The four cranks are set at angles of 100 degrees, 100 degrees, 100 degrees and 60 degrees, respectively. There are two three-bladed screws, weighing 26 tons each. They are 22 feet 4 inches in diameter and 32 feet 8 inches pitch.

There are twelve double-ended boilers in the four groups, and each group has a funnel 12 feet 2 inches in diameter, rising 106 feet above the furnace bars. The shafting is of nickel steel, from the Krupp foundry, and is 198 feet long and 24 inches in diameter. There are two condensers with a cooling surface of 35,522 square feet. They contain 11,000 tubes, whose total length would amount to something over 30 miles. There is an installation of sixteen ventilating fans, for working the vessel under forced draft. The centrifugal and other pumps, capable of being put on the bilge, are equal to the duty of discharging 3,600 tons of water from the ship per hour. There are four large dynamos for electric lighting, which is, of course, installed all over the ship; and there is also a refrigerating installation. Altogether, with steering apparatus and sanitary pumps, there are no less than 68 separate engines with 124 cylinders aboard the vessel.

As regards her performance, it may be said that on her first voyage she captured the Southampton-New York record from the St. Paul, with a crossing of five days twenty-two hours forty-five minutes. Her mean speed across was 21.38 knots, and her best day's steaming was 564 nautical miles, which was the best days run ever made by any vessel.

THE RECORD is advised by the general manager of the Canada Atlantic Railway Co. that the Canadian government are putting in for the Parry Sound route a gas buoy at Seguin Bank and one at Gordon Rock, in addition to the light that is there now. They are also putting up one more special range of lights, and putting out twenty additional buoys, so so that there will be no difficulty in getting into that harbor either by day or by night after these improvements are completed. The gas buoys have already been ordered.

NEWS AROUND THE LAKES.

BUFFALO.

Special Correspondence to The Marine Record.

Capt. S. R. Jones has been appointed to the Milwaukee, vice, Capt. Michael Palen, transferred to the Boston.

The Thomas Davidson chartered here on Tuesday for 25 cents on coal to Racine which was about the only cargo fixed for that day.

The wheat cargo of the Thomas Cranage under ran 900 bushels, and it is a matter of guessing where this handful of grain has got to.

The Union Dry Dock Co. has been kept busy this week working on the John Oades and the Fred. Mercur, of the Lehigh Valley Line.

The steamer John M. Nicol has been given a thorough overhauling this winter and will be ready for work next week as a first class boat again.

Hingston & Son are doing quite a lot of miscellaneous building for the contracting firm of Hughes Bros. & Bangs. Four lighters are being put together, and four strong, heavy yawl boats.

Capt David Beggs, late master of the E. M. Peck, is laid up in the Sisters' hospital with an attack of pneumonia. Chief Mate James C. Carr will sail the Peck until Capt. Beggs gets better.

The freight this week on coal to Lake Michigan ports is at twenty cents, with chartering very dull. It is thought that after May 1st coal will be shipped at a lively gait and at a slight advance in freight rates.

A contract for raising the burned steamer Maine, which lies partially submerged at the Tonawanda dock, where the casualty occurred, has been let to Connelly Bros., of this port. The extent of the Maine's damage cannot be definitely determined until she is floated.

The old passenger steamer Pearl left this port on Monday in tow for Bay City, where she is to receive new upper works. She was built in 1875 and has carried a vast number of passengers during her many successful seasons. After her rebuild she will no doubt be a favorite with excursionists as in the past.

"Never in the history of the lumber trade have the lake receipts of that commodity been so light for the first month of open navigation as this season," said a Buffalo dealer. "The entire shipment to Buffalo to date will not amount to more than 250,000 feet." There is upwards of three million feet now being shipped at Bay City and that will pull up for any shortness now felt.

The tug owners at the Welland canal came to an agreement to run their boats in an association, the same as last year. They reduced towing rates one cent per ton, loaded or light, through Welland canal. The elevator rates for lightering boats are the same as last year, two cents per bushel. The stage of water is good and boats drawing sixteen feet had no trouble getting into the canal.

At a meeting of the Buffalo elevator owners held last Saturday it was decided to continue the elevator association for another year. It was decided, however, to reduce the price for elevating to 5-8 of a cent per bushel, with ten days' storage. No decision was made regarding the canal elevators. George F. Sowerby was re-elected president; E. W. Eames, vice-president, and P. C. Cook, secretary and treasurer.

The engineers' survey boat, Gen. John M. Wilson, built by the Craig Ship Building Co., Toledo, reached here this week. She looks to be a handy, serviceable looking craft and not beamy enough for her length, to be taken for a harbor tug, nor flashy enough to be mistaken for a pleasure yacht. There is no doubt but that she will be able to pay the interest on the cost of construction as she will be kept busy on the new breakwater work at this port.

W. J. Conners' steam yacht Enquirer, which won the championship of the lakes in the race at Chicago last summer, goes to New York this week for government service. Captain Lyons, late of the steamer Clyde, will command her. The plan is not to sell or charter her until she gets to the coast, so that no complication may arise with the Dominion authorities on her passage through the St. Lawrence system of canals relative to naval auxiliaries and neutrality laws.

It's a pitiful tale if it's true, that the owners of a modern steel steamer find her $453 in the hole after carrying a cargo of corn at 1 cent from Chicago to this port. It is also stated that there were no extraordinary charges or extravagant disbursements to account for her lack of earnings. Some old 400 ton wooden schooners, canallers, etc., were said last season not to be worth more than a good sandwich; but if the owners of modern steel steamers have to pay several hundred dollars for the privilege of making a trip they could easily stand a champagne supper to the fellows who would take them off their hands for awhile.

An expedition is being fitted out by the underwriters on the cargo of the Western Transit Co. steamer Idaho, which foundered last November in Lake Erie. After the wreck is located divers will be put at work as salvors and it is expected that a considerable quantity of her general cargo will be found not much the worse for its immersion. It is thought that she is foundered in about ten fathoms of water. The insurance companies paid for a total loss in the case of the Idaho, so whatever jetsam may be recovered, or its value over the cost of getting it will be so much "velvet" for the underwriters. It is now expected that the hull will be found worth raising.

Notice has been received by Superintendent of Canals Kraft, from State Superintendent of Public Works Aldrich, that the canals will open for the season on May 8th. This is three days later than expected. Indications point to a fair season's work, if the St. Lawrence route don't gobble it all up on account of the war, there is not much danger of that, however, for exports will be carried in foreign bottoms whether shipped at Montreal or New York, as it is out of the question for the Spaniards to blockade any United States port, they'll have to burn their warships up to make fuel for themselves very shortly, with the ammunition and equipment thrown in to make a blaze. Like Mrs. Moriarity the United States is engaged, but the divil only knows where, and what wid.

Capt. James Davidson is after the Duluth towing companies because he was not given as good a season rate as other shipowners. It is now the intenton of Capt. Davidson to place a couple of good tugs at Duluth and do his own towing, hooking on to anything else when his boats are not engaged handling his fleet. Barry Bros. have let go their Duluth work and taken their tugs to South Chicago so now there is only Inman and Singer in competition at the head of the lakes and it is known that they have taken contracts this season at a very low figure, the Bessemer line and the fleet managed in the offices of Pickands, Mather & Co., Cleveland, closed towing contracts at very neat rates and Capt. Davidson considered that his fleet of about thirty boats had no right to help make up the deficiency caused by making too low a rate to the more favored shipowning companies.

The light-house tender Haze is now on her regular spring inspection and supply trip to all light-houses on Lake Erie. Capt. Hanford, U. S. N. of the Haze, says that the inspectors of the several light-house districts are just now uncertain regarding the duties which the immediate future may present. Should the war with Spain continue for six months or a year, he says, there is little doubt that every man would be taken for more important service. I imagine that the change to sea duty would come in regular order, though it would be only a question of time when all would be transferred. Who would supply the positions here in such an emergency is uncertain. The districts might be consolidated, and one officer required to do the work at present divided among three or four; or retired officers might be called upon to supply the vacancies caused by the call to sea duty. The office of light-house inspector, is, so far as lake commerce is concerned, one of the most important in the service, any dereliction of duty among the keepers might involve the loss of life and property and nothing short of a rigid inspection and naval discipline throughout the light-house work and duties could keep the force up to its present high standard of efficiency.

CHICAGO.

Special Correspondence to The Marine Record.

The rate on corn to Buffalo remains steady at 1⅛ cents.

The tug Welcome is in the floating dry dock having her machinery overhauled and being recalked.

Capt. Edward Evans has been appointed master of the Hurson Trans. Co.'s steamer City of Fremont.

Mr. W. H. Cochrane has been appointed assistant general passenger agent of the Goodrich Transportation Co.

The Lumber Carriers' Association held another very satisfactory meeting on Friday afternoon. Considerable more tonnage was added.

The steamer America when going up Chicago river Sunday morning collided with the abutment of State street bridge doing considerable damage to the abutment. The steamer was uninjured.

The steamer James Fiske, Jr., of the L. M. & L. S. Trans. Co. arrived here last Thursday from Buffalo and left for Lake Superior Saturday night. Capt. D. McLean is master, Henry Chalk, chief engineer.

Five big cargoes were taken out of South Chicago last week. The vessels were the steamers Waldo, Senator and W. D. Rees and the barges Carrington and Australia. The cargoes aggregated 1,000,00 bushels of grain.

A large fleet of lumber carrying vessels remain in port awaiting shippers' decision as to freights. A few have gone out receiving the association's tariff rates. Those in port are determined to either receive tariff rates or remain in port.

The Northern Michigan Line steamer Petoskey which has received a general rebuild and a new boiler at Burger & Burger's dry dock at Manitowoc will start sailing on May 2nd. Captain P. McGuiggan will be master, Thos. Collins, chief engineer, E. O. Henderson, purser, Frank McQuillan, steward.

The steamer Tampa was towed to the Illinois Central elevator, the steamer Escanaba to the Rock Island elevator, the steamer, City of Cleveland, George F. Williams and consort H. A. Hawgood and the Yukon and Yuma to Armour's A. and B. elevators, the City of Glasgow to the Minnesota elevator.

The Western Transit Co.'s steamer Boston went to the Chicago Ship Building Co.'s dry dock to receive repairs to damages caused by collision with a scow in the south branch of Chicago river Wednesday night. Some plates on the bow of the steamer were broken. It is claimed the scow carried no light.

The steamer A. B. Taylor, of the Chicago and Michigan City Line will go on her route May 2d, making daily trips. The company's new steel steamer America will go into commission about June 1st. She will make two trips daily between Chicago and Michigan City. Capt. M. F. Morgan will be master of the America.

The tugs Prodigy and Tomlinson arrived here from Duluth on Monday. The Prodigy will be used as an outside boat at this port, and the Tomlinson will be stationed at South Chicago with the tug James A. Quinn. Capt. Joe Lemoroux will be master of the Prodigy and Capt. Peter Barry will be manager of the South Chicago line.

At the Chicago shipyard the steamer H. E. Runnels, was in dock and received 17 new bottom planks forward and had her butts calked. The schooner Minnie Slauson had her foremast taken out and shortened and received a new jib boom. The tug Munson received part of a new stem and stem iron, some new outside plank, topsides calked and reironing.

Lumber charters are being made at the rates fixed by the Lumber Carriers' Association, and the officers of that organization are confident that they will be able to maintain the schedule. From Duluth to Chicago charters are being made at $1.87½ and from Marquette at $1.62½. In local Lake Michigan trade so little has yet been done that it is impossible to tell whether the association will win its fight or not. All the business so far transacted has been at association rates. In grain the market continues dull with no change in rates.

The steamer Fayette has been fitted up as a lighter by the Chicago Transfer & Lighterage Co. This is the first time any general lighterage scheme has been tried, although the Lehigh Valley has maintained its own lighter for several years. The Western Transit Co. had the McCormick in such service, but there was not enough work to keep the lighter busy, and the expense of running it proved excessive. All the lines except the Lehigh Valley will give the new lighterage company their business, and it is believed it can be kept in operation most of the time.

The Coal Handling Machinery Co. are compounding the engines of the Independent Tug Line tug Welcome. The engines were double and the new construction removes entirely one of the old high-pressure cylinders and replaces it with the low-pressure cylinder, and in order to secure room for this new low-pressure cylinder the high-pressure cylinder which is retained is raised up high enough to allow free access to the new low-pressure cylinder, thus making an original and ingenious tandem compound construction. They are putting in a first-class condenser air pump and making a most complete overhauling of the engines.

The stocks of grain in Chicago elevators last Saturday evening were 3,904,000 bushels of wheat, 14,290,000 bushels of corn, 736,000 bushels of oats, 327,000 bushels of rye, and 117,000 bushels of barley. Total, 19,374,000 bushels of all kinds of grain, against 23,109,000 bushels a year ago. For the same date the secretary of the Chicago Board of Trade states the visible supply of grain in the United States and Canada as 25,914,000 bushels of wheat, 31,649,000 bushels of corn, 11,775,000 bushels of oats, 2,860,000 bushels of rye, and 894,000 bushels of barley. These figures are smaller than the corresponding ones of a week ago by 3,240,000 bushels of wheat, 3,268,000 bushels of corn, 971,000 bushels of oats, 216,000 bushels of rye, and 201,000 bushels of barley. The visible supply of wheat for the corresponding week of a year ago increased 10,287,000 bushels.

DETROIT.

Special Correspondence to The Marine Record.

The steamer John F. Eddy went into dry dock here this week.

Mr. S. C. Waldo, manager of the North-Western Transportation Co., visited Buffalo this week on vessel business.

Nearly 200,000 bushels of clipped oats, barley and rye was shipped at Milwaukee this week for Buffalo at 1 cent per bushel, freight.

The steamer Parks Foster loaded a cargo of wheat at Toledo, for Chicago this week. This is the second steamer that has loaded at Toledo for Chicago with wheat this season.

The state board of auditors at Lansing allowed the bill of the F. W. Wheeler Co., of Bay City, for bringing the Yantic here from the Atlantic coast. The amount of the bill is about $12,000.

W. G. Wilmot & Co., of New Orleans, who recently sold to the government a large tug built for them at West Bay City, are said to be negotiating for the construction of another tug.

Capt. Murney Ackerman has purchrsed the schooner Oliver Mitchell for spot cash from Capt. E. H. VanDusen, of Toledo, and Miss A. E. McMass, of Detroit. Consideration not given.

Capt. Charles H. Westcott has been appointed Supervising Inspector of Steamboats for the eighth district with offices at this port. The appointment gives general satisfaction in vessel-owning circles.

Anyone knowing the whereabouts of Joseph Deming, who was before the mast in the schooner Porter last September, is kindly asked to communicate with C. A. Chamberlin, 504 Chamber of Commerce, Detroit.

The Canadian fishery steamer Petrel has placed the gas buoys in Point Pelee Passage. Masters complain that the range lights at the lower end of Grosse Point cannot be seen

by downbound vessels when the weather is the least bit thick, or when there are upbound vessels in the channel. The captains say that the lights are too small.

The promoters of the Detroit river bridge are at work, but it is not likely that any headway will be made in this Congress, in any case, the Chief of Engineers is now too busy to take the matter up and his report would have to be presented before anything in the way of building could be done. So that the river is not likely to be spanned this year, unless by the beginning of work on another tunnel.

Plans of the steel passenger steamer for service between Erie and Buffalo, which is to be built by the Detroit Dry Dock Co., for Eugene McFall and others, of Sandusky, have been altered. She will be ten feet longer than was first intended and will have two feet less beam, making her 200 feet keel and 32 feet beam. The plans provide for fine lines with a view to securing high speed. This vessel is not to be completed until June 1st of next year.

The American Lake Superior Power Co. is asking for bids for the construction of a water-power canal at Sault Ste. Marie. The canal will be one and a half miles long, 200 feet wide and 22 feet deep. The work is one of great magnitude, involving the expenditure of several million dollars. A lease for a 20,000 horse-power engine to be ready in two years has been made to the Lake Superior Carbine Works. New York and Philadelphia capitalists are pushing the work.

The underwriters are not going to give up so easily in the total abandonment of the steamer Outhwaite and her consort the Barr. Capt. F. D. Herriman, chief surveyor for the Great Lakes Register, representing the Prime, McCurdy Syndicate, Chicago, has engaged the powerful wrecking tug Swain, owned by Messrs. Parker & Millen at this port, also the Alpena wrecking outfits owned by Gilchrist & Fletcher, and operations will begin on the release of the boats with every appliance and facility at hand. If the insurance companies interested like to spend money enough the boats can of course be floated again and it now seems as if they were going to get them.

One class of people that, speaking from a commercial standpoint, deplore war are the contractors that have work, present or prospective, on improving harbors and channels of the lakes. "War means that all the engineer officers will go to the scene of operations, and that all improvement work on the lakes will be allowed to lapse until it has ended, this means hundreds of thousands of dollars out of the pockets of the contractors. "The most of us" said a contractor this week "have large, costly plants, which must lie idle, and where we might be hard at work on the contracts we must also lie idle and lose the valuable time, which in these days of close competition is so valuable to us. The work of improving the lake water-ways and harbors, which has been steadily in progress for several years without interruption, will be put back just the length of the war." Perhaps not, for to lick a few "Dago Spaniards" ought not to cause this great and glorious nation much of a headache at any stage of the scrimmage.

The new C. & B. line steamer City of Erie is being completed at the yards of the Detroit Dry Dock Co., and it is expected that she will be ready to go on her route by June 1st. We are guessing up here to know what the Cleveland Leader man was driving at when he printed the following item in his marine column on Tuesday: A brick chimney on a steamer is something new, but the Cleveland & Buffalo Transit Co., has decided to try the innovation on the City of Erie, which is now approaching completion. It is believed that the steamer will ride the waves so smoothly as to render such a chimney perfectly safe. During the past month work on the City of Erie has progressed rapidly. Her houses comprise 165 staterooms and six parlors, and, together with other quarters, will furnish sleeping accomodations for upwards of 700 guests. Over 125 of them may sit down in the handsome dining room at one time. The topmost house is the observation and smoking room. It is all very nice and a good reading notice, but he was surely getting off a gag on the company in erecting a brick chimney on the finest side-wheel passenger boat on the lakes. How about a paper funnel or smokestack?

CLEVELAND.

Special Correspondence to the Marine Record.

This is the time of spring cleaning, and a large number of the offices where vessel men do business are undergoing the usual season overhauling.

The Marine Hospital at this port requires a supply of furniture, and Surgeon D. A. Carmichael in charge of the station, is advertising for bids.

After the two large L. P. & J. A. Smith scows came out of the Cleveland dry dock the steambarge Neff, owned by Mr. John Corrigan, docked for calking.

The steam yacht Comanche, built by the Globe Iron Works Co. for H. M. Hanna, has been inspected by naval officers this week with a view to her being used on the coast.

The revenue cutter Gresham, on her way to the Atlantic to join the United States Navy, passed through the Welland canal on Monday. The Gresham collided with a swing bridge, knocking the bridge off its pivot and doing considerable damage.

A stroll along the old river bed, especially in the vicinity of the shipyard of the Globe Iron Works Co., and at the Ship Owners' dry-dock, shows vessels building, dry docking, repairing, and the revenue cutters being thoroughly equipped, which makes a very busy spot around that locality.

Although naval experts have talked about inspecting and purchasing some of the most powerful tug boats, none have yet started for the Welland or Erie canals. The government can probably get all of this class of tonnage it wants from ports along the coast. Tug boats at least are plentiful enough there.

The many friends of Capt. Dan McLeod, late manager of the Inland Lloyd's vessel register, will be pleased to learn that he seems to have taken a new lease on robust health, is hauling out to windward again as it were, and is fully as active as of yore with plenty of business to attend to along the lines of vessel surveying, etc.

A reorganization of the Hughes Steam Pump Co. has just been completed in the formal incorporation of the Snider-Hughes Co., of Cleveland, capital $100,000, to carry on the business of founders, machinists and builders of pumping machinery. The incorporators are Martin Snider, Clarence A. Snider, H. M. Snider, John T. Stockwell, Jr., and Otho C. Snider.

The light-house tender Haze, Commander Franklin Hanford, U. S. N., Inspector of the Tenth District, visited this port on Wednesday on her regular inspection tour. I learned that the inspector is one of the most critically exact and thorough-going inspectors in the service, and everything has to be minutely perfect before it will pass his inspection. Capt. John Baxter, master of the Haze, is his old-time self, and it is a pleasure to see his genial countenance around occasionally as these inspection trips occur.

The tow barge Polynesia, of the Corrigan Line, has by no means a yacht-like appearance nor are her officers' staterooms fitted with Turkey carpets, but there was room enough found in her this week for 5,115 gross tons of iron ore at Marquette. The Polynesia is one of the, so called, latest built steel schooners, though to any one outside of the marine business she might be considered as a steel built ware-house used to store and convey across the lakes a small section of an iron ore mine each trip.

The V. H. Ketcham docked in the ship owners' dry dock for a new rudder on Thursday. The Badger State will follow the Empire State in dock, the latter steamer has been well opened up and is found in excellent condition, considering that she was built thirty-five years ago. They evidently not only put good timber into vessels in those days, but also knew how to fasten it, though for that matter her owners, the Western Transit Co., Buffalo, always kept their boats up well, and gave them everything they required, including a periodical survey and thorough overhauling each year.

The Cleveland ore and coal freight market is in practically the same condition it was last week, and the indications are that there will be no material change in the situation this week. Ore shippers are taking very little tonnage, and coal boats are more plentiful than cargoes. A small block of coal to go to Green Bay is said to be all the coal that has been covered by lake freight contracts. Shippers to the head of Lake Superior are in the market for season tonnage, but vesselmen do not appear to be anxious to tie up at the rates that are being offered. A few boats are being placed for wild ore cargoes at the old rates.

The following data, compiled by inspector Edward A. Beals, covers a period of twenty-six years, and is taken from the Weather Bureau records at this port for the month of May for twenty-six years. TEMPERATURE.—Mean or normal temperature, 57°. The warmest month was that of 1896, with an average of 66°. The coldest month was that of 1882, with an average of 52°. The highest temperature was 93° on May 30, 1879. The lowest temperature was 28° on May 1, 1876. Average date on which first "killing" frost occurred in autumn, October 11. Average date on which last "killing" frost occurred in spring, May 1. PRECIPITATION (rain and melted snow).—Average for the month, 3.62 inches. Average number of days with .01 of an inch or more, 13. The greatest monthly precipitation was 7.41 inches in 1893. The least monthly precipitation was 0.67 inches in 1877. The greatest amount of precipitation recorded in any 24 consecutive hours was 2.10 inches on May 17, 1876. CLOUDS AND WEATHER.—Average number of clear days, 10; partly cloudy days, 13; cloudy days, 8. WIND.—The prevailing winds have been from the southeast. The highest velocity of the wind was 60 miles from the southwest on May 23, 1893.

Another postal card picture of the great Cleveland & Buffalo steamer City of Erie has been sent out. This picture represents the vesesel as being equipped with brick smokestacks, and it is said she will be such a smooth rider that brick stacks will be a possibility.—Pittsburg Post. That genial punster, Mr. W. F. Herman, general passenger agent for the C. & B. Line, had a photograph taken of the new steamer as she lay at the yards of the Detroit Dry Dock Co. From the position where the "shot" was taken the line ran through a couple of brick smokestacks ashore and they showed up in the background at about the center of the boat. To escape the consequences of developing brick chimneys at a spot where the funnels will actually be placed it struck Mr. Herman that, Chicago like, he might utilize the other man's property to advantage. So in stating that the smokestacks on the boat looked abnormally lofty, he explained that the two hundred foot "cloud disturbers" were built of bricks and mortar, but she could carry them, as there would never be any motion in her or to her, or in the words of the Pittsburg Post, "she would be a smooth rider." As usual, Mr. Herman's wit has given the C. & B. line much free advertising, and that, too, of the right sort.

TERMS AND ABBREVIATIONS USED IN SHIPPING.

(THE "SHIPPING WORLD," YEAR BOOK.)

A | c.—Account. E.E.—Errors excepted.
E. & O.E.—Errors and omissions excepted.
F.O.B.—Free on board. F.P.A.—Free of particular average.
Inst.—Instant, present month. C | I | F.—Cost, insurance and freight.
Prox.—Proximo, next month. Ult.—Ultimo, last month.
D | D.—Days after date. M—D.—months after date.
D | S.—Days after sight ° | ₀—Per cent.
@—At, to. ℔—Per. B | L.—Bill of lading.

Ad valorem.—According to value.
Adjustment.—The settlement of a loss incurred by the insured.
Adventure.—Goods consigned to a party to be made the most of.
Agio.—The premium borne by a better sort of money above an inferior.
Appraise.—To value goods imported.
Assets.—A term for property and money in contradistinction to liabilities.
Average.—A sacrifice made to prevent the total loss of a ship or cargo; an average of the loss insured for the benefit of all concerned, to be made good proportionately.
Award.—The decision in arbitration.
Banco.—A continenal term for bank money at Hamburg and other places.
Barratry. A fraudulent act on the part of the master or crew of a vessel, against the interest of the owners. Insurances are effected against barratry.
Bill of Health.—A certificate granted by consuls and customs officers as to health of port.
Bill of Lading.—A master's acknowledgement and undertaking as to receipt and delivery of goods or cargo.
Bottomry.—Money borrowed on a ship's bottom or hull, to be repaid with interest if she returns in safety, but if not to be lost or forfeited. Sometimes it is raised on the lading and master's personal security; see *Respondentia.*
Brokerage.—The commission charged by merchants and brokers for securing and transacting business for ships.
Charter Party.—A contract with the owner, agent or master for the service of his vessel.
Consul.—The commercial representative of one country residing officially in another.
Credit, Letter of.—A letter written by one party to another, requesting the party addressed to advance the bearer or person named a certain sum of money.
Days of Grace.—Days allowed by law or custom for payment of Bills of exchange (except those payable at sight or on demand) after specified day of payment; thus, when three days are allowed, as usual in England, a bill due on the 5th of the month is payable on the 8th.
Dead Freight.—The damage payable by one who engages to load a ship fully, and fails so to do.
Debenture.—An instrument of the nature of a bill or bond, by which a debt is claimable. May bear interest or confer some peculiar advantage. It is given at the Custom House to claim a drawback.
Derelict.—Goods cast away or relinquished by wreck or otherwise. Reductions in duty are also made apportionate to the damage on them.
Deviation is a divergence from the voyage insured which may release the underwriter from his risk.
Drawback.—An allowance granted by Government to encourage exportation of an article, or a return of duties paid upon certain articles of exportation.
Discount.—An allowance made for money paid before it is due. To discount a Bill is to buy from the holder the right to receive the money upon it when due.
Dunnage.—Articles used in stowing a cargo or trimming a ship.
Embargo.—An order issued by Government to prevent vessels sailing.
Flotsam.—Goods floating after a wreck. *Jetsam* are those sunk. *Lagan* are those sunk but secured by a buoy.
Groundage.—Money paid in some parts for permission to anchor.
Insurance.—A contract whereby, for a stipulated consideration, called a premium, one party undertakes to indemnify the other against certain risks.
Invoice.—A document enumerating goods sold from A to B. Where the goods are exported by A to be sold on his own account, the document is a specification, and not, strictly speaking, an invoice.
Lay Days.—Days allowed by charter for loading or unloading ships.
Lighterage.—The expense of a lighter or barge.
Manifest.—The specification of a cargo made out and signed by the master of a ship.
Policy.—A document containing the contract of insurance. A *Valued Policy* is when the interest insured is valued. An *Open Policy* is one in which the amount is left for subsequent proof. In an open policy, where the value shipped does not equal the value insured, the difference is termed *over insurance;* and the proportionate amount of premium returnable to the issuer is called *a return for short interest.*
Primage.—A small allowance for the shipmaster's care of goods now generally included in the freight.
Pro rata.—Payment in proportion to the interests concerned.
Quid pro quo.—Giving one thing for another.
Respondentia.—A contract of loan by which goods in a ship are hypothecated to the lender, as in bottomry.

LAKE AND ERIE CANAL TRADERS.

When Mr. Andrew Carnegie was in Conneaut about a year ago in company with the capitalists who now form the Pittsburg, Bessemer & Lake Erie railroad, he said in the presence of the men who were associated with him in the great industry that he would make "the best and largest harbor out of Conneaut on the south shore of Lake Erie." It is however well to remember, that while an extensive and important industry can develop a port, it requires vastly diversified interests to transform a comparative village into a large shipping point.

As quoted in our issue of the 21st inst. Mr. Carnegie is again on record as stating: "We are upon the threshold of another important advantage. The Erie canal is being deepened to nine feet. When this is done the coast of transportation between Pittsburg and New York, Boston and all northeastern points, will be less than one half of present rates for seven busy months of the year. Barges between Conneaut and New York will leave each point daily, and transport the products from Pittsburg to Conneaut in cars which would otherwise move empty to the lakes for ore, with little cost. A canal transporter has given me 75 cents per ton by barge line from Conneaut to New York as his price upon the deepened canal. Between Conneaut, Milwaukee, Chicago and other lake ports transportation will not cost more. When these lines are established and the Ohio is improved, Pittsburg will be the best distributing, as it is now the best manufacturing point in the United States."

The accompanying illustration shows the fleet of the Cleveland steel canal boats which may be taken as the best and only regular type of lake and canal craft at present in use. It may be noticed that on the fore part of the after-house, of the convoy, named the Alpha, she has a small smokestack, which is shipped when she is towing her consorts through the Erie canal. The photograph was taken when the fleet loaded steel rails at the Johnson Works, Lorain, O., a port distant about 200 miles from Buffalo on the south shore of Lake Erie and over which they had to traverse before reaching the canal, thence to New York City by way of the Hudson river. The dimensions of the boats are 98 feet over all, 17 feet 11 inches beam, and 10 feet depth. When the improvements now being carried out on the Erie canal are completed a larger class of boats can of course be used and thus cheapen transportation as Mr. Carnegie suggests.

WAR AND THE GRAIN TRADE.

The first effect of war on the lake trade is being felt in Chicago.

Instead of sending wheat to New York points for European shipment, the Chicago operators are shipping to Canadian ports, where the plan is to sell the grain to Canadian commission merchants, who will in turn sell to European buyers, making commissions both ways.

This is done because the property of Americans, whether in American vessels or not, is coming to be regarded as unsafe.

Some eastern vessel owners have begun to put their vessels under the English flag. At present the law makes it impossible for these boats to change their flag again, but efforts are being made in Congress to have this law altered.

DOMINION DEPARTMENT OF MARINE.

The annual report of the Department of Marine and Fisheries states that during the year ended June 30, 1897, the expenditure for maintenance of light-house and coast service was $434,895.66; construction, $10,910.30; while for the previous year the expenditure for the light-house and coast service, including construction, was $466,057.55, showing a decrease of expenditure for the last year of $20,251.59. The appropriation for this service was $481,510, the expenditure being $35,704.04 less. The total number of light-stations, light-ships and fog-alarm stations in the Dominion was 635, lights shown, 783; steam-whistles and fog-horns, bells and guns, 83; light-keepers and engineers of fog-alarms with masters of light-ships, 652.

The extended coast line of Canada, the numerous bays, inlets, rivers, lakes, harbors, and other navigable waters require a large number of buoys, which are maintained at an average cost of $55,000 a year. For the year the service cost $49,624.19. The cost is increased in years when new contracts are given for steel signal and other coast buoys. The chief engineer, in his report relating to buoyage, points out that the department has been substituting steel coast buoys for wooden buoys, with favorable results. The districts now buoyed, in all parts of the Dominion, number about 300, and the buoys number about 3,000. A contract has been let for the construction of 39 steel can and conical buoys to be distributed to agencies for use as spare buoys, and to replace worn-out buoys. The aggregate cost of these will be $5,192.

The total number of steamboats reported in the several districts in the Dominion is 1,354. Of these 96 are new vessels, as reported by the Chairman of the Board of Steamboat Inspection; the gross tonnage being 224,865.22.

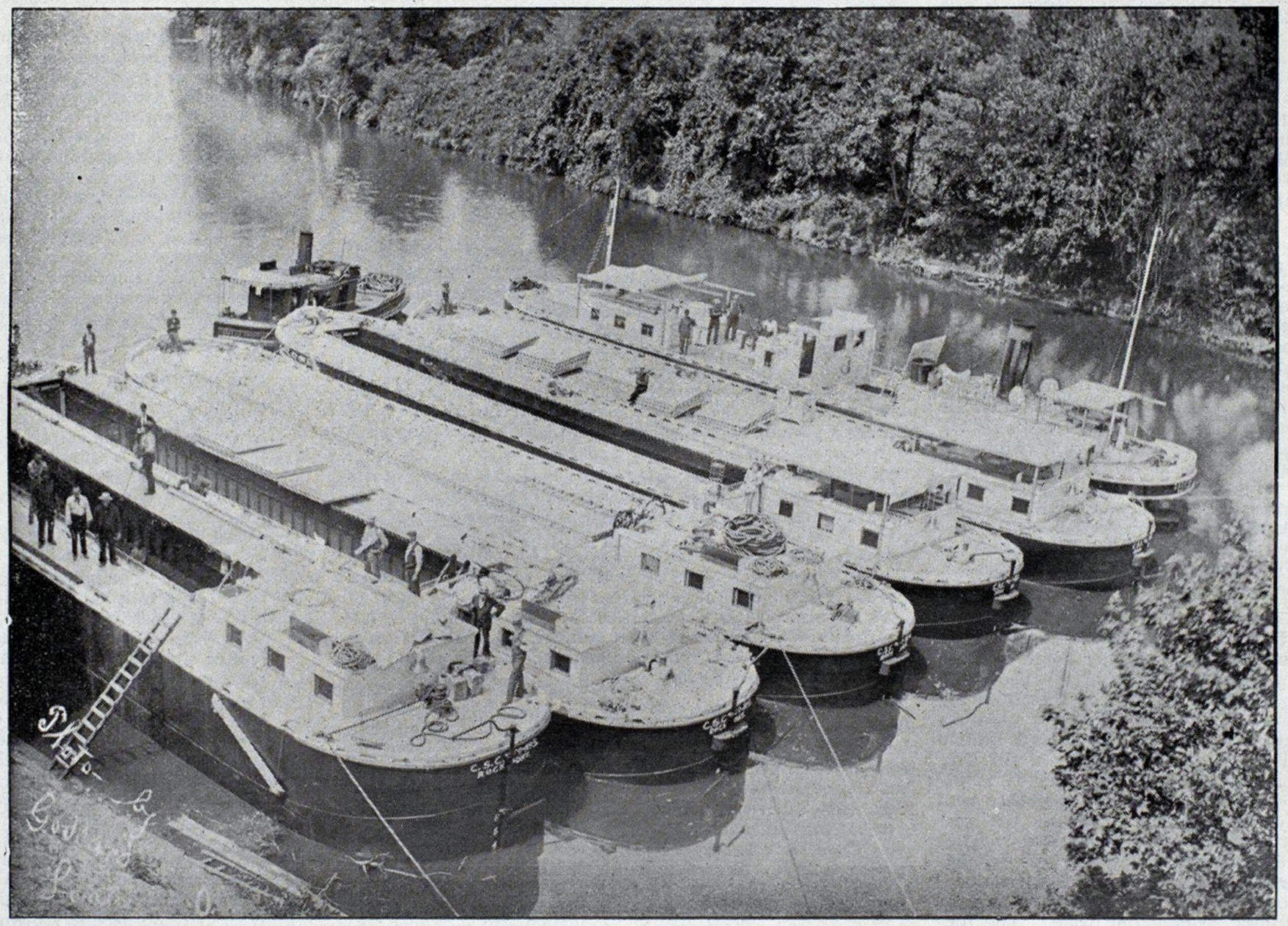
The hydrographic survey of the Great Lakes made good progress, the steamer Bayfield being employed. Mr. Stewart completed the survey of Lake Erie in July, and resumed the survey of Lake Huron. The charts, when completed, will be forwarded to the Admiralty, and with the sheets of the U. S. survey will make a complete chart of the lakes. A chart of the eastern part of the Bay of Quinte, from Kingston to Deseronto, was completed.

THE LUMBER TRADE.

A Duluth dispatch says: The amount of dry lumber unsold at the head of the lakes is said to be 36,088,209 feet. The demand for lumber has fallen off in a most discouraging manner since it became evident that war was inevitable. A lumber shipper who has just returned from a ten days' visit in the Eastern markets says that the business during the last ten days has fallen off 25 to 40 per cent. In addition to the decreased demand the buyers do not appear to feel inclined to send forward lumber that has already been purchased and paid for.

Vessel owners that are outside the Lumber Carriers' Association demand the same prices as the association, so that it is not expected that there will be any break unless it comes from in the association.

Another lumberman is of the opinion that the war will eventually have a good effect on the lumber business. He says that after the first great victory for the United States all lines of business will be favorably affected and that the lumber business will be especially benefited.



FLEET OF STEEL BOATS IN USE FOR LAKE AND ERIE CANAL TRAFFIC.

VESSELS REGISTERED.

Official numbers assigned to lake-built craft by the Bureau of Navigation, Treasury Department, Washington, D. C., during the week ending April 16; steel schooner Maida, 3,475 tons gross, and 3,211 tons net, built at West Superior and hailing from Ashtabula, Ohio; R. A. Burton, 361 tons, Buffalo; and Wm. McGee 25 tons, Buffalo, both steamers; five scows averaging about 100 tons each, hailing from Duluth, Minn.

THE NEW TOW BARGE MAIDA.

The new steel tow barge Maida, built for the Minnesota Steamship Co., and launched last week from the yards of the American Steel Barge Co., W. Superior, Wis., is the fourth vessel of the ordinary type to be turned out by the Superior shipyard, the others being the two oil tankers and the Constitution. The new boat much resembles the barge Constitution, which was launched just a year ago—April 20—for the same owners. The Maida is 11 feet longer than the Constitution. Her dimensions are: Length over all, 390 feet; length between perpendiculars, 376 feet; beam, 46 feet, moulded depth, 26 feet. Her official number 92,844, her registered gross tonnage, 3,474 78-100, and her net tonnage, 3,210 74-100.

The Maida is a single decked tow barge with main deck beams and no laid deck except at forward and after ends. The spar deck forward is raised to the height of the main rail to form a forecastle deck. The after deck house contains the pilot house and quarters for officers, etc. The forecastle contains the crew's quarters and steam towing machine.

The ship is fitted with a 4½ feet water bottom, with a capacity of 2,500 tons of water ballast. The hold is divided by three bulkheads. The hull is built on the channel system of construction, with three girders on each side of the center. All of the plating is of open hearth mild steel having a tensile strength of from 52,000 to 62,000 pounds per square inch. The rivets made by the American Steel Barge Co. conform to the same rigid specifications. The steel tank top is ½-inch thick and is carried up the bilge so as to cover the bracket plates. The vessel is designed especially for the iron ore and grain trade. She has 13 cargo hatches of 24 feet centers, each hatch 29x8 feet in the clear. One hatch is a trunk hatch down from the forecastle, which allows the cargo to be loaded well to the forward end of the ship.

The Maida will be rigged as a three-masted schooner, similar to the Constitution and Nasmyth. Her masts will be of steel 92 feet in length, and the sails and rigging are furnished by H. Channon Co., of Chicago. Her spread of canvass is expected to be sufficient to enable her to make port in event of accident to the steamer towing her. Among the equipment features of this vessel is a towing machine for the handling of steel tow lines as furnished by the American Ship Windlass Co., Providence, R. I. There are also three steam winches of the Cleveland Ship Building Co.'s make. There is a complete installation of electric lights, on deck and in the holds, to facilitate working the cargo at night. The vessel is fitted with steam steering gear, type steam windlass and capstans, a duplicate set of ballast pumps, all of which auxiliary machines are supplied with power from a Scotch type boiler at 120 pounds pressure. The boat is slightly heavier in construction than any of the previous tow-barges, owing to her increased size. The steel was furnished by the Carnegie Steel Co., of Pittsburg, Pa. On a draft of 18 feet of water, this vessel will carry 6,600 net tons, or 5,900 gross tons of iron ore, which is the equivalent of 216,000 bushels of wheat.

The Maida is the first vessel to be constructed under the new superintendent of the American Steel Barge Co., Mr. D. E. Ford, late of the Standard Oil Co., of New York. Mr. Ford is in close touch with Rockefeller interests, and his connection with the barge company gives the concern considerable prestige in lake shipbuilding circles. The Maida is built under the supervision of Mr. Robert Curr, of Cleveland, O., who supervised the construction for her owners, the Minnesota Steamship Co., Cleveland.

SCOLDED FOR TAKING A FORT.

In 1757, a man-of-war's man, Strahan by name, captured, almost single-handed, one of the forts on the Hooghly. The fort, which was strongly situated, was invested by the admiral, and Strahan, during the time of mid-day repose, wandered off "on his own" in its direction. Gaining the walls without discovery, he took it into his head to scale a breach made by the cannon of the ships, and, on reaching the platform, he flourished his cutlass and fired his pistol at "the niggurs," shouting: "The place is mine"! The native soldiers attacked him, and he held his own with indomitable pluck till reinforced by one or two other tars, who had straggled out of camp and heard his huzzas.

The enemy, unprepared for this ill-timed attack, and fearing further invaders, fled from the fort upon the opposite side, leaving twenty cannon and a large store of ammunition. Much to Strahan's surprise, he was lectured by the admiral for his breach of discipline, and he was dismissed with hints of future punishment. "Well", said Strahan, "if I'm flogged for this here action, I'm———if I ever takes another fort as long as I lives!"—London Sketch.

BRITISH SHIP BUILDING RETURNS.

From Lloyd's register shipbuilding returns for the quarter ended 31st March, 1898, we quote the following table, which gives the total figures for vessels now under construction in the principal shipbuilding districts of the United Kingdom. Each district includes places in the neighborhood of the port after which it is named:

District.	Description	31st March, 1898. No.	Gross Tonnage
Belfast	Steam	22	157,530
	Sail	...	...
	Total	22	157,530
Barrow, Maryport & Workington	Steam	9	19,510
	Sail	..	...
	Total	9	19,510
Glasgow	Steam	132	238,913
	Sail	1	200
	Total	133	239,113
Greenock	Steam	69	156,921
	Sail	1	1,638
	Total	70	158,559
Hartlepool and Whitby	Steam	30	91,618
	Sail	1	260
	Total	31	91,878
Middlesbro' and Stockton	Steam	33	89,757
	Sail	...	...
	Total	33	89,757
Newcastle	Steam	78	185,185
	Sail	...	...
	Total	78	185,185
Sunderland	Steam	58	169,352
	Sail	...	...
	Total	58	169,352

LAUNCH OF THE AMAZONAS.

The steamer Amazonas was successfully launched from Davidson's shipyard, West Bay City, on Saturday. The steamer is 315 feet long, 44 feet beam, and 26 feet molded depth. She is very strongly constucted, having double steel keelson plates, steel cord at the head of the frames, steel arches, and diagonal strappings.

The motive power consists of the latest improved triple expansion engine, having Joy valve gear, steam reverse gear, and the latest improved auxiliary pumps. Steam is supplied by a large steel boiler, allowed a pressure of 160 pounds, to which is fitted the Howden system of forced hot blast, thereby enabling it to burn the poorest and cheapest grade of fuel, and obtain the best results. The Amazonas also has all the latest improved machinery, which consists of steam steering gear, steam windlass, steam capstans, steam deck hoist, steam pumps, and the steam towing machine, which enables her to tow large consorts by means of a steel wire hawser. An electric lighting plant is also furnished.

The cabins for the officers and crew are hardwood cabinet finish, and there is also a spare suite of rooms forward, consisting of sitting room, bed room and bath rooms for guests. The Amazonas has a capacity of 125,000 bushels of wheat on the ordinary lake draft, and it is expected that she will be ready for work by the end of this week.

The new steamer classes A1* in the Inland Lloyds Insurance Register, and has the highest rating in the Foreign Classification Register, so that she may be insured at a very low rate in foreign companies not having regular agents on the lakes.

VESSELS CLASSED.

The American Shipmasters' Association, New York, have classed or rated this week in the "Record of American and Foreign Shipping" the following vessels: Schooner, Addie M. Anderson; brig, Buck Ridge; British 3-masted schooner, Lily; German screw steamer, Catania; Swedish barks, Canada and Atlantic, and Norwegian bark, Thelma.

THE master of the British ship Kate Thomas, which cleared Friday for Cork, is named Thomas, but he is no relation to the owners, William Thomas & Co. He has a daughter, though, named Kate Thomas. The vessel was entered at the custom house, when she arrived, by H. B. Thomas and her cargo by W. Ford Thomas, who also had a daughter named Kate. H. B. Thomas cleared the ship for Eppinger & Co., and drank the captain's health in a mug of Thomas and Jerry when he wished him good-by. There is a Thomas cat on board the vessel, so Captain Thomas says.—Weekly Commercial News, San Francisco.

EASTERN FREIGHT REPORT.

Messrs. Funch, Edye & Co., New York, report the eastern freight market as follows: There is a general advance in grain freights, caused by the efforts of some shippers to provide for and dispatch pending engagements; the list of charters effected would, doubtless, have been considerably larger but for the policy adhered to by owners of available tonnage to withhold it from the market. Regular berth boats have and, as it appears to us, very judiciously, engaged grain right ahead for the next two or three months at gradually hardening rates; thus, as far as this competition is concerned, owners of open boats have little to contend against, if the present good enquiry should continue. Owing to the very sudden sales of a number of boats trading under the United States flag to the West Indies, Central America and Venezuela, agents have, in several cases, found themselves with a lot of cargo on hand, both to and up from discharging port, and in this predicament have had to pay up to 12s. for promptly available time boats for brief periods. These facts, standing isolated, appear to have contributed to give owners exaggerated ideas of the value of their tonnage, and would seem to have created an excitement in ship-owning circles, which is by no means participated in our markets. We have certainly established a higher range of freights, and some especial trades, in default of offers of prompt tonnage, may cause the acceptance of further vessels at rates entirely above the level of fresh business, but this will not constitute a reliable market rate. The United States coasting trade will doubtless suffer by reason of the unwillingness of many owners to run the (probably unlikely) risk of capture, but to this trade, under the existing navigation laws, of course foreign tonnage is not applicable. The Gulf ports appear to be in want of a few prompt boats to clear up old contracts. Timber shippers, however, are more or less inclined to suspend operations in preference to paying freight which, as they consider, have no prospects of being long maintained. A number of foreign boats have of late been placed on sale in this market, under the impression that the United States government required a great deal of tonnage, and was prepared to pay extremely liberal prices for such. Our experience has not carried out this theory, since, as near as we could find out, some especially fit colliers was all that was needed, and, we learn, have been purchased in England, although a few more of the most modern type, large and not less than 11 knots steaming power, might still be disposed of at liberal, but not excessive prices.

There is no change whatever to report in regard to sail tonnage. The number of charters for the week is insignificant, as the political situation causes owners of the American tonnage to withhold their ships from the market, whilst foreign tonnage is scarce. Rates have undergone no important change as yet, though undoubtedly higher freights will be obtainable ere long for South America.

TREASURY DECISIONS RELATING TO VESSELS, NAVIGATION, ETC.

ADMEASUREMENTS OF SMALL STERN-WHEEL STEAMERS.

TREASURY DEPARTMENT,
BUREAU OF NAVIGATION.
WASHINGTON, D. C., April 14, 1898.

To collectors of customs and others:

A lack of uniformity exists in the admeasurement of stern-wheel steamboats, especially of the type plying on the western rivers, with engines and freight space above the first deck, and not having a second deck which can properly be considered such a deck to the hull within the definition given in article 84 of the Regulations of 1892 as to constitute it a "tonnage deck". (Art. 74.)

The regulations provide that in consequence of the diverse modes of construction of steam vessels much in regard to the system of their admeasurement must necessarily be confided to the judgment of the measuring officer, and state that in cases of doubt the facts should be submitted to the Bureau of Navigation.

The bureau directs, therefore, that such vessels shall be so admeasured under article 85 as to include, only in the gross tonnage, the space under the first deck, and also the space or spaces above such deck available for cargo or stores, or for the berthing or accommodation of passengers or crew, as mentioned in article 84, exclusive of spaces used for cabins or staterooms, and constructed entirely "above the first deck, which is not a deck to the hull." (Art. 81.)

EUGENE T. CHAMBERLAIN, Commissioner.

Approved:
O. L. SPAULDING, Assistant Secretary.

The St. Clair Tunnel Co., is contemplating converting the motive power for the tunnel from steam to electricity. Ever since the casualty of Nov. 28, the officers of the company have given the subject of electrical propulsion considerable attention, and it is reported they have now about decided to equip the tunnel with electrical power.

MARINE RECORD

ESTABLISHED 1878.

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CLEVELAND, O., APRIL 28, 1898.

NAVAL RESERVES.

When the Hon. Edward C. O'Brien was Commissioner of Navigation during President Harrison's term of office, he made the following report to Congress relative to the Naval Reserves:

I desire to suggest the importance of a national naval reserve, local in character, with a fixed term of enlistment, and recruited from among our shipwrights, naval architects, pilots, marine engineers, and citizen seamen along the Atlantic, Gulf, and Pacific coasts and the Great Lakes, the entire organization to be under the supervision of the Secretary of the Navy. Such organization should, I think, consist of four divisions, to be known as the Division of the Atlantic, the Division of the Gulf, the Division of the Great Lakes, and the Division of the Pacific.

An analysis of the naval reserve of several seaboard States shows a somewhat curious state of affairs so far as regards occupations. While there are many electricians, teachers, stenographers, draftsmen, patternmakers, clerks, lawyers, etc., there seem to be but few who have had any experience as seamen. What service of value these men would be able to perform on the sea in case of emergency is somewhat problematical. An examination of the list of 375 names belonging to the Naval Brigade of the Massachusetts volunteer naval militia develops the fact that one man had served in the revenue marine, five in the Navy, four in the merchant marine, and that three had sailed in canoes. Fifty-six, if the ditto marks in the list at hand are correct, had been employed on yachts.

There appears to be no proper inducement for bona fide sailors to join the naval brigade. Such inducement should exist, and, if possible, the men belonging to the organization should have had actual experience in seafaring life and at least be able to sail on the high seas without becoming seasick. It may be that the lawyers, teachers and engineers, of which the brigade is chiefly composed, do not desire association with real seamen, and that this may have prevented their employment. It would seem that the meeting place of the various naval brigades ought to be a sort of headquarters for actual sailors, furnishing them such inducements and advantages as would lead them to join the reserve, especially if the government is to bear a portion of the expense incurred in maintaining such organizations.

In the Navy, and the revenue cutter service, a seaman has little chance to become an officer, and barriers of a social nature seem to be raised in the naval reserve. This should be changed. The man who commences at the bottom of the ladder ought to have an incentive to promotion and opportunity to secure it. It is true that the conditions are now different from those obtaining in the days of the clipper ship, before steam had won its present supremacy. Then the master of a vessel almost necessarily had a preliminary training before the mast. Now the scientific and practical attainments of masters of steamships must be obtained to some degree in a different school. But, after all, it is probable that the best seamen will be those who have combined theoretical knowledge with practical experience at sea. Schoolships and naval reserves should have for scholars and members those who either have had or who contemplate having actual experience upon the ocean. There should be some probability, at least, that persons accepted as members would be qualified for marine service in case of war. Persons who join the reserves merely to get an "outing" in the summer at government expense, should be excluded.

IT would be much better from every standpoint if the Navy Department would not le it become known that the government is seeking and inspecting lake built and owned vessels for the naval auxiliary service. The craft already inspected may pass through the Canadian system of canals to the Gulf of St. Lawrence, under private ownership, but if the Dominion authorities are warned that they are simply en route to the navy yard preparatory to being transferred to the U. S. government for service under the stars and stripes it is a question if the vessels would be permitted to use the canals. The Dominion government will no doubt act strictly according to the laws of neutrality and see that the lesson taught the mother country on the Alabama claims will not be needed to be repeated in the Dominion of Canada.

THE losses on hulls and cargoes since April 6th will easily foot up to over $200,000. Ice damage was accountable for the loss of about $50,000 on the schooner North West, including freight and cargo and fully $10,000 more on several vessels for repairs. The loss, total or constructive, on the steamer Outhwaite and consort Barr is estimated at $120,000 more, or perhaps a portion of this amount can be saved or salved. $20,000 will hardly cover the stranding and "touch and go" damage of a number of other boats not to speak of the burning of the old steamer Maine, rated at $17,000, will no doubt have to be taken off last year's premiums, but it is none too promising this season from an underwriter's standpoint, considering the blanket policy now in use.

LAKE FREIGHTS.

Charters for iron ore are scarce as hen's teeth nor has much of the season charters been carried for the month. With nearly four million tons on the docks at the opening of the season, shipments to furnaces have been lively enough, but there has been no undue rush to get ore to the docks. A couple of charters Marquette to Lake Erie was closed at 50 cents and it is expected that the carrying trade will be more brisk next week when some of the larger boats quit the grain and go into the ore trade.

Grain has been the staple that has held freights to where they are. Corn has been paying 2¾ cents to Kingston with vessels holding for 3 cents and ilkely to get it, spot boats having been offered that figure on a large shipment, or large for the Welland canal trade. The Buffalo rate has held steady at 1¼ cents on wheat and 1⅛ cents on corn. Duluth wheat has held steady at 1¼ cents and even at these rates there has been some detention at Buffalo, which, however, is now over. In twelve cargoes, held for winter storage and shipped from Chicago not a bushel was wet, and the grain weighed out 1,400 bushels over the bills of lading. Toledo, wheat to Buffalo 1 cent and to Kingston 2¼ cents.

Cargoes for coal are scarce at Lake Erie ports at 20 cents Lake Superior, 25 cents Lake Michigan. A rate of twenty-five cents for the season was freely offered, and has found some takers, but not so many as the shippers would like. The most desirable class of vessels are not showing any eagerness to charter on those terms and owners are holding out for thirty cents, and many of them are beginning to feel pretty confident that shippers will pay that figure in a few days.

Owners of small vessels are beginning to think that they may derive some benefit from the war with Spain. It is not improbable that a large part of the grain which has hitherto been shipped to Buffalo may be sent for the next few months to Kingston, and then to Europe by way of Montreal, a neutral port. If this course is adopted, boats small enough to make the Welland canal locks will be in demand for the through trip, because large vessels will be forced to transfer their cargoes at Port Colborne, an operation involving expense and delay. Buffalo men who fear a loss of business are endeavoring to counteract the tendency towards the Montreal route by pointing out that most of the grain exported is carried in foreign bottoms, and it would therefore be as safe to ship from New York as anywhere else, but this argument does not seem to be entirely reassuring to the owners of the grain.

THE DETROIT RIVER BRIDGE.

A special from Ottawa, under date of April 27th, says: The Windsor & Detroit Union Bridge Co., consisting of Charles M. Hays and George B. Reeves, of the Grand Trunk, and representatives of the Wabash and Michigan Central railways, were today empowered by the railway committee to build a bridge across the Detroit river, between Windsor and Detroit.

Their application was vainly resisted by Mr. Nicoll Kingsmill, Q. C., who argued that the Canadian Southern railway had already been granted a charter for the same purpose, and that if a second charter was issued it would arouse such opposition from the Lake Carriers' Association as to destroy both schemes.

Mr. Bell, Q. C., replying on behalf of the Grand Trunk, said that the Canada Southern had failed in its original idea of building a tunnel and had not succeeded in its later purpose of spanning the river with a bridge. The Grand Trunk, the Wabash and Michigan Central were in earnest and were confident that they would get the necessary powers from the United States authorities to carry out the undertaking. Mr. Bell's arguments, backed up as they were by the persuasive powers of Mr. William Gibson, M. P. for Lincoln, proved irresistible and the associated railway companies carried the day. Mr. Bell gave an assurance that, if permitted to charge reasonable tolls, a footway for passengers would be provided on the bridge.

THE FISHING INTERESTS OF THE LAKES.

It requires a large fleet of craft to bring fish from the fishing grounds on the lakes to the fish houses. It is shown from a recent circular that the number of fish and value were as follows:

	Number.	Value.
Lake Superior	5,242,000	$166,744
Lake Michigan	39,633,004	724,596
Lake Huron	12,304,236	198,766
Lake St. Clair, St. Clair and Detroit Rivers	359,830	14,112
Lake Erie	35,247,948	528,804
Lake Ontario	657,048	28,728
Total	93,524,869	$1,654,750

SUN'S AMPLITUDES.

The following approximate amplitudes of the Sun's rising will be given each week in this column during the season of navigation. A second bearing may be taken by compass at sunset by reversing the bearings given for the nearest latitude, as the change in declination for a few hours makes but a slight difference in the true bearing of the Sun's setting:

LAKE ERIE AND S. END LAKE MICHIGAN, LAT. 42° N.

Sunrise.	Bearing (degrees).	Bearing (points)
May 1	E. 19° N.	E. by N. ¾ N.
May 4	E. 20° N.	E. by N. ¾ N.
May 7	E. 21° N.	E. by N. ⅞ N.

LAKE ONTARIO, S. END HURON AND CENTER LAKE MICHIGAN, LAT. 44° N.

Sunrise.	Bearing (degrees).	Bearing (points).
May 1	E. 20° N.	E. by N. ¾ N.
May 4	E. 20° N.	E. by N. ¾ N.
May 7	E. 21° N.	E. by N. ⅞ N.

N. END LAKES HURON AND MICHIGAN, LAT. 46° N.

Sunrise.	Bearing (degrees).	Bearing (points).
May 1	E. 21° N.	E. by N. ⅞ N.
May 4	E. 22° N.	E. N. E.
May 7	E. 23° N.	E. N. E.

LAKE SUPERIOR, LAT. 48° N.

Sunrise.	Bearing (degrees).	Bearing (points.
May 1	E. 21° N.	E. by N. ⅞ N.
May 4	E. 22° N.	E. N. E.
May 7	E. 24° N.	N. E. by E. ⅞ E.

With a compass correct magnetic, the difference between the observed and true bearing or amplitude will be the variation for the locality. Should there be any deviation on the course the vessel is heading at the time of taking the bearing, the result after the variation is applied will be the amount of deviation on that course. If the correct magnetic bearing is to the right of the compass bearing, the deviation is easterly, if to the left, the deviation is westerly.

NAUTICAL TIME.

SHEBOYGAN, WIS., April 26, '98.

To the Editor of the Marine Record:

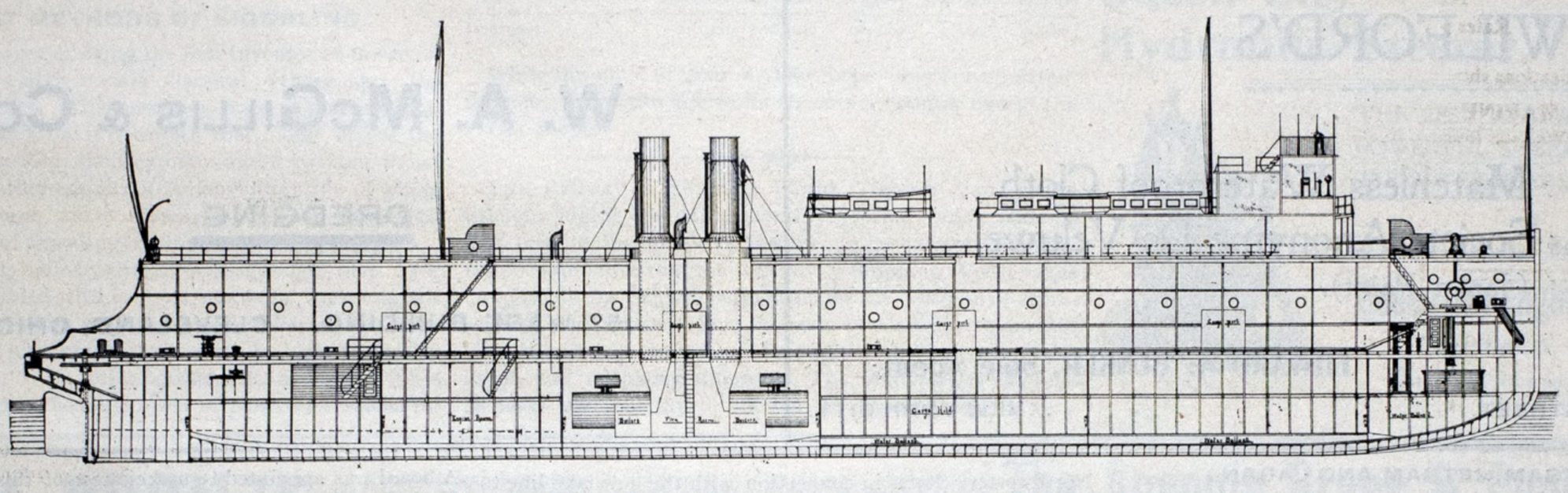
We have a slight dispute regarding the way sea-time is reckoned and my adversary says that it is always kept the same as astronomers count, beginning at noon and ending the next noon. I hold that it is kept like the days ashore

and ends at midnight for that date although the day is carried on in the log book until the next noon. By explaining this question, which we have agreed to refer to you, the atmosphere will be cleared around here a trifle.—W. E. D.

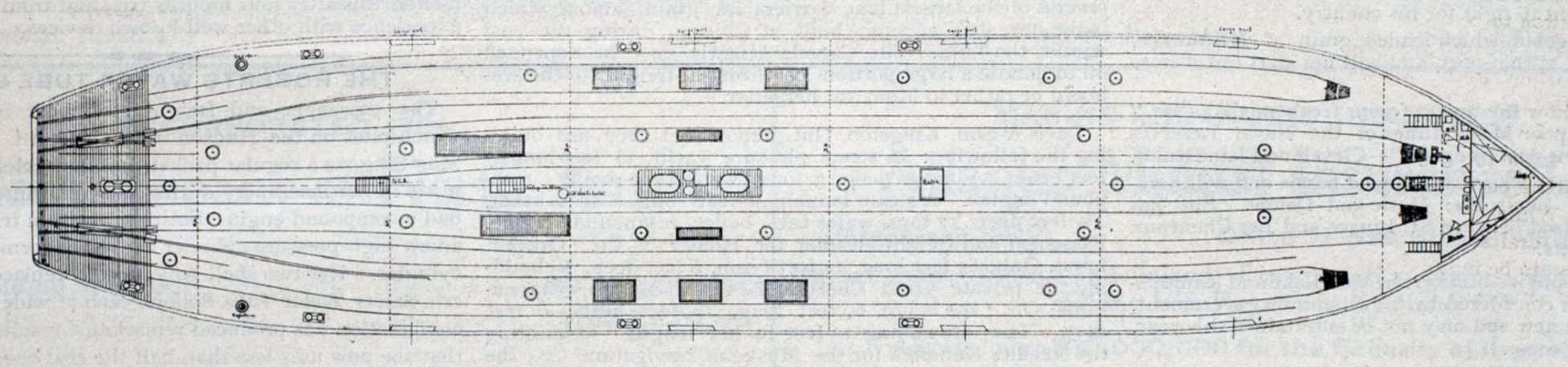
The Nautical Day, as well as the civil and astronomical day, is measured by apparent motion of the sun. It begins just with the astronomical day, but it is dated with the noon on which it ends; hence it is 24 hours in date later than the astronomical day, the first 12 hours of which are marked in the journal with P. M., and the last 12 hours A. M., so that occurrences which happen on the afternoon of the civil day on which it begins, come in the journal under the date of the civil day in which it ends. The log book is generally kept in nautical or sea-time, but it may be kept in common or civil time and such has been recommended for the past twenty years, so that the majority of log books are now kept in civil time, although it is in many cases optional with the chief officer, who keeps the journal on board ship.—ED.

A RAILROAD CAR FERRY.

The Globe Iron Works Co., Cleveland, will build for the Toledo & Ann Arbor Railroad Co. a twin screw steel car ferry for service on Lake Michigan to be completed about October 15, notice of which was given in the RECORD issue April 21.



PLAN OF THE TWIN-SCREW RAILROAD CAR FERRY, OR TRANSPORT,
To be built by the Globe Iron Works Co., Cleveland, to the order of the Ann Arbor Railroad Co., for service on Lake Michigan.



View of the main deck, showing the rails laid, etc.

The accompanying illustrations are taken from the original line drawings and reduced suitably for reproduction. The principal dimensions and particulars of equipment are as follows: Length over all, 270 feet; length on water line, 259 feet; beam molded, 52 feet; depth to main deck molded, 18 feet 6 inches. On the main deck there will be four tracks, jack screws, chain, clamps, etc., for securing twenty-two railroad cars. It is intended to carry a limited number of passengers, so that there will be a deckhouse forward, in which arrangements will be made for this purpose, and in which the quarters of officers will also be located, with texas and pilot house above. The hold will be divided into seven compartments by six 'thwartship watertight bulkheads. One of these compartments will be suited to carrying 25,000 bushels of wheat. Four gangways are to be provided on each side of the vessel for use when required for cargo other than railway cars, and the bow of the craft is to be especially strengthened for working in ice.

There will be two sets of horizontal, compound, direct-acting engines with cylinders of 20 and 40 inches diameter and 36 inches stroke. Steam will be furnished by four boilers of the tubular firebox type, each 6 feet 6 inches in diameter and 14 feet long, built to withstand 125 pounds steam pressure. Feed and air pumps to be provided for the propelling machinery, as well as fire, sanitary and ballast pumps, are all to be of duplex type, and of a kind best suited to marine service. Provision is made for steam heat throughout the ship and the capacity of the electric light plant is to be 250 16-candle-power lights. Electric masthead and signal lights will be furnished in addition to oil lamps for these purposes. Two stockless anchors of 3,000 pounds each; steam windlass and steam capstan forward, as well as two double-cylinder steam capstans on main deck aft; steering gear and auxiliary hand gear, etc. Propellers are to be four-bladed, each of 11 feet diameter.

THE ELEVATOR POOL AT BUFFALO.

The end of the Buffalo elevator pool has been witnessed this week. The organization has collapsed and will in all probability not be resumed. More than half of the elevator interests were out of the pool, including the export elevator, operated by Armour & Co., the Great Northern, and the Kellogg. All canal houses which had no rail connections were excluded. This step was the death blow to the pool. Some of the canal houses which have not turned a wheel for fifteen years were being opened, and the Frontier, which is controlled by James Davidson, pulled out, and offered to take grain at one-eighth of a cent, which is the rate made last March by the Kellogg, the first house to refuse to re-enter the pool. A lively fight is anticipated, and it is claimed that free elevation will be the result before many weeks are passed. It is now thought that the struggle will very likely last the entire season, and this will be to the interest of the vessel owners.

A RECKLESS TUG CAPTAIN.

There was a hearing on Tuesday before the U. S. Steamboat Inspectors Monaghan and Chalk, on charges preferred against Capt. Willett Session, of the Inman tug Effie L, by Major Clinton B. Sears, Corps of Engineers, U. S. A., in charge of the improvements in rivers and harbors on Lake Superior.

It is charged that Capt. Session violated the pilot rules of the Great Lakes. Major Sears is said to be very much in earnest in the matter, and intimates that if it shall happen that he does not procure redress before the local board of inspectors, he will take it to the Treasury Department through the Secretary of War. If the charges are sustained, the license of Capt. Session may be suspended, or the inspectors may, in their discretion, limit the punishment to a disciplining.

The incident that led up to the filing of the charges against Capt. Session happened about two weeks ago. The United States steamer Tangent was entering Duluth harbor through the ship canal at full speed. Behind her came the Effie L., according to the complaint, also at full speed. The latter boat after drawing up abreast of the Tangent turned quite sharply to starboard, cutting across the bow of the Tangent. It is alleged that it was necessary for the Tangent to stop in order to avoid a collision. It is said that the Effie L., gave no passing or other signal. The complaint says that there is a great deal of reckles tug driving in Duluth-Superior harbor, especially on the part of the big tugs against the smaller tugs. Maj. Sears expresses his determination to put this matter through in the manner stated. The hearing took place at the offices of the inspectors in the federal building, but their decision has not yet been made public. The action of Maj. Sears may key others up to insisting upon a less reckless method of handling tugs at other lake ports.

FORCING THE BLOCKADE.

The Chicago harbor patrol boat Calumet left this port for the coast on Tuesday. She will fuel at Erie. Her voyage to the Atlantic will be watched with some curiosity, as it will afford a test of what the British government intends to do in the matter of allowing the use of the St. Lawrence canals to boats which are not technically vessels of war, but which everybody knows are intended to be employed in naval operations against Spain. If the Calumet is allowed to pass, the public will be able to conclude that the Gresham and other revenue cutters can also get through, or at least such may be supposed. At the same time there is quite a distinction between armed revenue cutters, fitted with a torpedo tube and openly known to be for use in the navy, and a small steam cutter like the Calumet, which could almost have been taken through the Erie Canal to the Hudson, or shipped on flat cars to her destination.

ORDERED TO PAY A TOW BILL.

Judge Johnson, of Milwaukee, Monday, ordered judgment in favor of the Escanaba Towing & Wrecking Co. for $750 against J. M. Jones, of Detroit, who was one of the owners of the schooner Magee. The Magee sprang a leak while in northern Lake Michigan, in October, 1895. She was taken by tugs of the Escanaba company to her port of destination. The vessel was libeled upon a salvage claim and she was sold for $900. There was not enough left to satisfy the claim of the Escanaba Towing & Wrecking Co., and suit was brought against the owner, who had ordered the tugs to tow the schooner to her port.

PAWLING & HARNISCHFEGER, of Milwaukee, Wis., have opened an office in the Fidelity Building, Pittsburg, with W. C. Beach, manager, representing them in the crane line.

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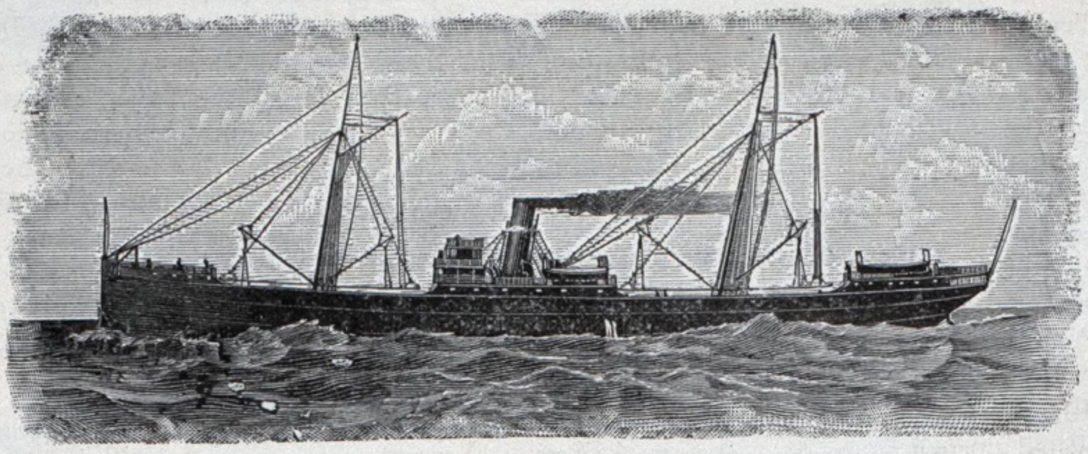

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FLOTSAM, JETSAM AND LAGAN.

Barry Bros., will operate the tugs Prodigy and Tomlinson at South Chicago this season.

Capt. J. S. McNeill, master of the steamer Thomas Cranage, is going to the front to fight for his country.

The steamer Gogebic, which loaded grain at Milwaukee, last winter, is still at that port, and will not start out before May 1.

"WHY, Julia, how the waist of your frock smells of tar."
"Yes, mamma; poor Mr. Ratlines of the Naval Reserves has been bidding me goodby again."—Cleveland Plain Dealer.

The small steamer Elva has changed hands and will hereafter ply between Sault Ste. Marie and Detour. She has hitherto been utilized between St. Ignace and Les Cheneaux islands in the straits.

The proposal to put ice-breakers in Mud Lake and Kaministiquia river will be considered by the Dominion government. The proposition is new and may not be entertained this year. But it is bound to come.

It is understood that Capt. W. H. Singer has purchased the Barry tug Industry. The Industry has been transferred to the Singer fleet and will make a valuable addition to it. The tugs Industry and Prodigy came out last year.

The Marinette Iron Works, at West Duluth, Minn., were sold under foreclosure of mortgage, April 2, to George P. Knowles, of Superior, Wis., acting for the bondholders, who bid $2,100. The original cost was nearly $200,000.

During the coming summer the C. P. R. does not intend to resume its service between Windsor and Port Arthur and Fort William. The company's steamers, Alberta, Athabasca and Manitoba, will run all season from Owen Sound, giving a prompt and satisfactory service with a sailing every alternate day.

Efforts are to be made to reduce the dangers to navigation at Charity Shoal, Lake Ontario, where the Toronto steamer Rosedale got into trouble. It is probable special attention will be given to the marking of the shoal. While there is an average of 10 feet of water over the shoal, there are several shoaler spots which are dangerous to any but very light draft.

A Remedy for Toothache.—"Jakes, my toothache is simply intolerable." "Well, but, Simpson, old man, I had just as bad a toothache yesterday as you have now, and I'm all right to-day." "What did you do?" "Went home, and my wife pitied me and kissed me and made so much of me that the pain vanished." "Is your wife at home now, Jakes, do you think?"—Fairplay, London.

Traffic Manager Smith of the Canada Atlantic Ry. reports favorable arrangements with the ocean lines out of Montreal for large quantities of export traffic from Manitoba and the Northwestern States in connection with the new lake line to Parry Sound. Its chartered fleet of five 3,000 ton steel boats, Saxon, Briton, Roman, German and Grecian are nearly ready for service. In addition to this fleet the company has chartered several of the largest lake carriers for grain, among which is the new steel steamer built at Chicago during the past winter, the Linn. The Canada Atlantic may be depended on to handle a large portion of through freight to the seaboard or rather to Montreal hereafter.

Davis & Son, Kingston, Ont., report that they are building the following: A steam pleasure yacht, 36 feet long, 7 feet beam, 36 inches deep, 3 tons, water-tube boiler, compound engine. A steam launch, 48 feet long, 8 feet beam, 4½ feet deep, 12 tons, water-tube boiler, compound engine. Passenger and freight steamer for Homer & Co., Gravenhurst, Ont., 65 feet long, 14 feet beam, 6 feet deep. Rebuilding the private yacht Charlie M., for C. Mickle, Gravenhurst, Ont.; she is now 60 feet long, 10 feet beam, 6 feet deep. They are adding 13 feet to her length. Rebuilding the steamer Kanonha for the Muskoka Navigation Co., she is 108 feet long, and they are adding 18 feet, rebuilding the hull, adding new cabins and making other improvements.

Millions of dollars will be added to the tax duplicate of Ohio, especially in Cleveland, Toledo, Sandusky and other port towns, if three bills which were passed by the state legislature last Wednesday become laws. They are the three bills which were drafted by the taxation committee as the result of its investigation. The first bill provides that all goods whether stored or in transit, shall be listed for taxation, except tangible property, actually in transit and originating at a point outside of the State and consigned to an outside point. All property in the State on the second Monday in April shall be listed. The bill also provides that agents having charge of the property must list it in the county in which the agent resides, even though the owner may reside outside of the State. Boat stock shall be listed in the county in which the owner resides. It is also provided that six months residence in a county makes a citizen for the purpose of taxation. This is to prevent persons who live in cities from listing their property in smaller towns.—Sandusky Register.

Capt. James R. Raymond, manager Standard Automatic Releasing Hook Co., in a letter to the Record says: Orders have been received for the standard automatic releasing hook for the boats of the new steamer Georgia building for the Goodrich Transportation Co., of Chicago. This line now has the boats of all their steamers equipped with this device which shows they regard the safety of their patrons of some importance and provide their vessels with the latest and best safeguards for life, in time of danger. Orders have been received for the boats of the two new revenue cutters, building at Cleveland, also that in obedience to an order from the Bureau of Construction and Repair, U. S. Navy. A board was appointed to make a test of this device in the U. S. S. Annapolis, and report to the department as to its efficiency and use in the Navy, reported highly favorable and recommended its use, stating that it fulfilled all the requirements; this after four months trial and from officers having experience with other well-known devices.

THE ROBERTS WATER TUBE BOILER.

The passenger and freight steamboat Sarah A. Jenks, which plies on the Hudson river between New York and Sing Sing, as a regular packet, has had extensive alterations made in her machinery during the past winter. She formerly had a compound engine, but this has been tripled by placing a new high pressure cylinder above the former high pressure cylinder. Her two shell boilers were replaced by two Roberts Safety Water Tube Boilers, each 7′ wide x 9′ long. The combination has produced remarkable results, as it is stated that she now uses less than half the coal she formerly used, and makes her time with greater ease. This is a remarkable statement in regard to economy, but is vouched for by "all hands."

The greatest possible difference of economy between a compound and a triple engine is about 15 per cent. Therefore, it seems as though the balance of the economy is attributable to the change in boilers. The boilers make steam with so much ease, that they are run almost entirely with the dampers shut—even then the furnace doors have to be occasionally opened in order to keep the safety valves from blowing off with the throttle wide open. This very slow combustion of coal is not generally assumed to contribute to economy, and Mr. Roberts has, therefore, suggested that an experiment be tried with only one boiler, under full natural draft, in order to give a better chemical combustion, which will probably result in still better economy—especially in view of the fact that only one fire would have to be banked at night instead of two.

The Roberts boilers occupy much less space than the former boilers and apparently weigh less than one-half the weight of the former boilers in steaming condition. The consequent decrease in the draft of the boat is of great advantage to the Jenks in crossing the "flats" at Sing Sing.

The Roberts Boiler Co. have been working night and day for four months with about 100 men. They built and shipped 42 of their boilers in 137 working days and they are still crowded with orders.

NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—WISCONSIN.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD.
WASHINGTON, D. C., April 21, 1898.

MENASHA RIVER BEACON LIGHTS.

MENASHA RIVER LOWER BEACON LIGHT.—Notice is hereby given that, on or about May 5, 1898,a fixed white lantern light, illuminating the entire horizon, will be established, 18 feet above lake level, on a white post on a small crib located in Little Butte des Morts Lake, head of Fox river, and about 3,400 feet nortwesterly from the canal lock, lower end of the Menasha river.

MENASHA RIVER UPPER BEACON LIGHT.—Notice is hereby given that, on or about May 5, 1898, a fixed white lantern light, illuminating the entire horizon, will be established, 18 feet above lake level, on a white post on a small crib located in Lake Winnebago, about 900 feet southeasterly from the NE. point of Doty Island and at the head of the Menasha river.

By order of the Light-House Board.

FREDERICK V. MCNAIR,
Commodore, U. S. Navy, Chairman.

ANCIENT METHODS OF SIGNALING.

The fabulous honor of being the first inventor of the art of signaling is bestowed by certain classical writers upon the ingenious Palamedes. This hero may have introduced improvements in detail, but it is certain that, long before the time of the Trojan War, the Egyptians and Assyrians, if not the Chinese and other nations of remote antiquity—of whom monumental records alone remain to us—had developed regular methods of signaling by fire, smoke, flags, etc.

The Great Wall, built by the Chinese ages ago, and 1,500 miles long, is studded with towers. Between these signals were interchanged when troops had to be collected in order to resist attack at any point threatened by the Tartars or "outer barbarians." By Major Boucheræder and others it has been considered that the huge tower of Babel was erected for similar, as well as for a number of different purposes. That is to say, for the signaling not necessarily of any particular words or sentences, but of expected events, imperial decrees, military orders, and other matters intended to be understood through conventional signals, whether of lights, flags, semaphores, or other devices, by all the motley host of nationalities and languages of which the Chaldean Empire was composed.—The Cornhill.

VISIBLE SUPPLY OF GRAIN

As compiled for The Marine Record, by George F. Stone, Secretary Chicago Board of Trade.

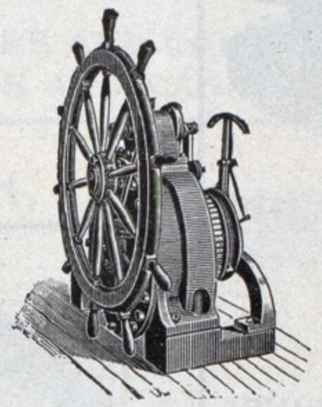
CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY. Bushels.
Buffalo	677,000	1,062,000	388,000	174,000	84,000
Chicago	3,904,000	13,959,000	730,000	285,000	117,000
Detroit	35,000	197,000	7,000	19,000	.....
Duluth and Superior	3,230,000	3,137,000	3,377,000	1,190,000	156,000
Milwaukee	106,000	.....	1,000	55,000	2,000
Montreal	212,000	52,000	1,118,000	41,000	42,000
Oswego	.....	.....	.....	.....	.....
Toledo	369 000	958,000	327,000	10,000	.....
Toronto	19.000	.....	21,000	.....	7,000
On Canal	.....	.....	46,000	.....	.....
Grand Total	25,914,000	31,649,000	11,775,000	2,860,000	894,000
Corresponding Date, 1897	36,201,000	21,715,000	13,711,000	3,526,000	3,073,000
Decrease	3,240,000	3,268,000	971,000	216,000	201,000

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

THE Railway & Shipping World, Toronto, Can., is the title of a highly creditable monthly journal which made its first bow to the public in March. In its salutory the publishers announce that the Railway & Shipping World takes its place in the field of periodicals for the purpose of representing the transportation interests of Canada—steam and electric railways and shipping, and the allied express, telegraph and telephone interests. The March issue contains 28 pages and the April number 56 pages, which is a very promising indication of the prosperity of the new journal. The RECORD wishes the new competitor for trade favors much success, and we believe that there is an excellent field for its steady growth and development under the apparent able management of its publishers.

A contemporary figures out that from March, 1840, until March, 1893, 122 transatlantic vessels—steamships plying between Europe and America only—were lost en route, and as a direct result of this 6,369 lives were lost. The estimate of lives lost from various other causes is 600. The number of steamships never heard from after leaving port was seventeen. The number burned was nine, and the number foundered twelve. The other wrecks were caused by collisions, stranding, collision with icebergs, etc. From March, 1893, to the beginning of the present year the loss of life on the Atlantic has been much less than in former years, though one or two large steamers have had serious mishaps, and one—the Boston—was never heard from.

Queen City Hydraulic Steerer.



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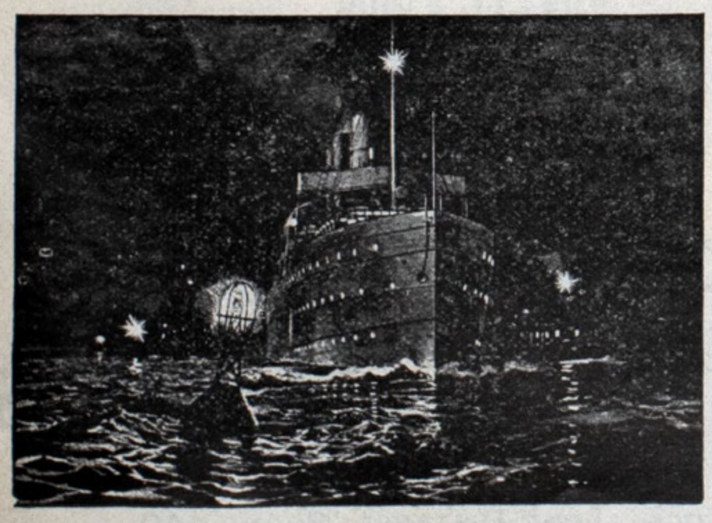

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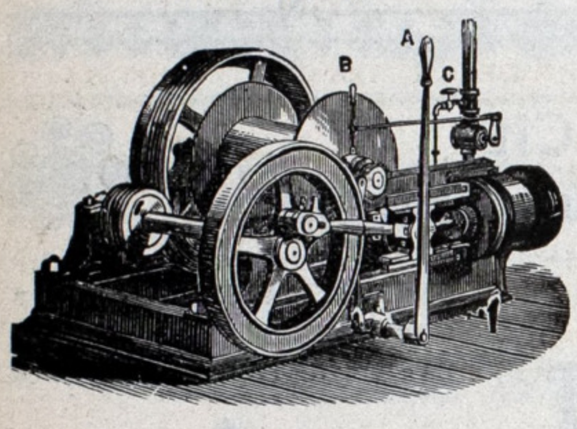

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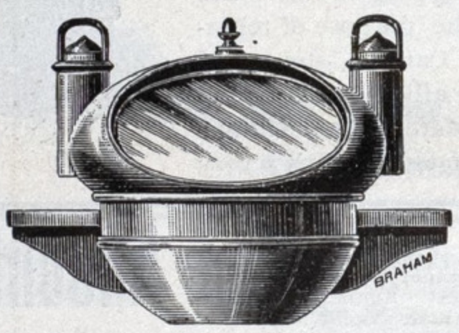

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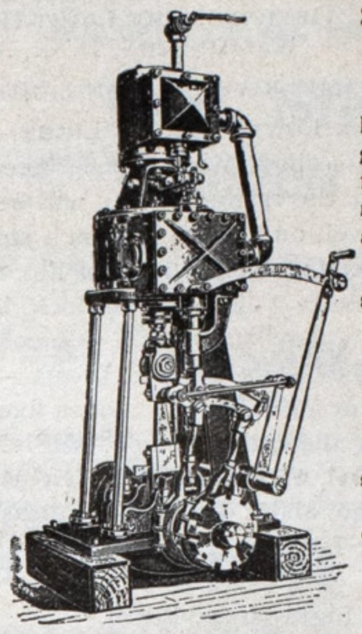

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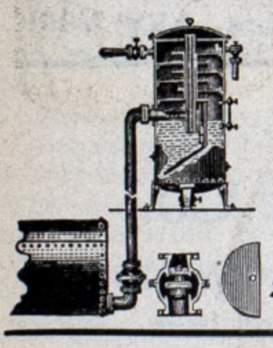

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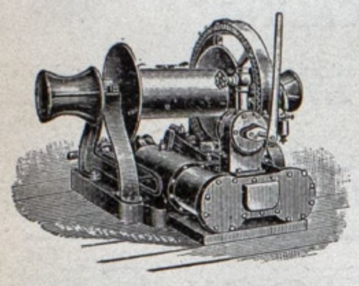

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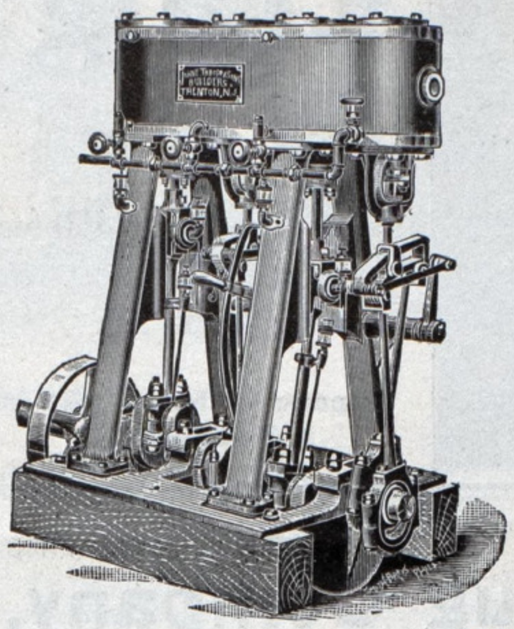

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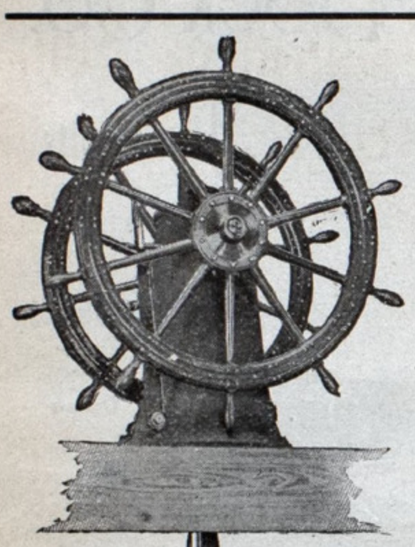

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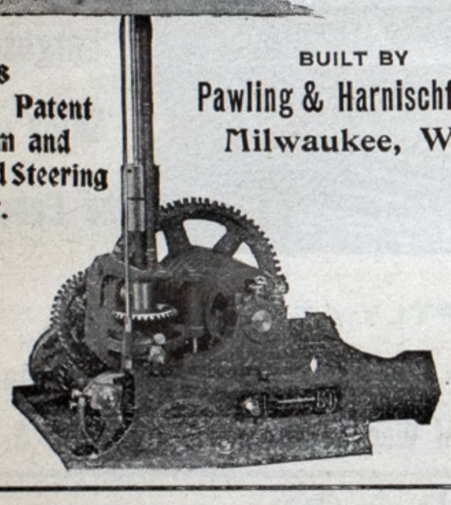

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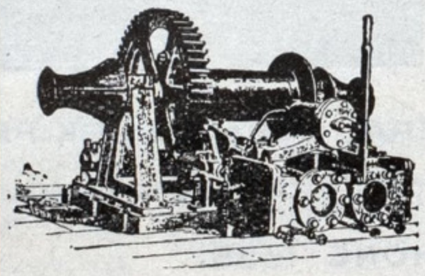

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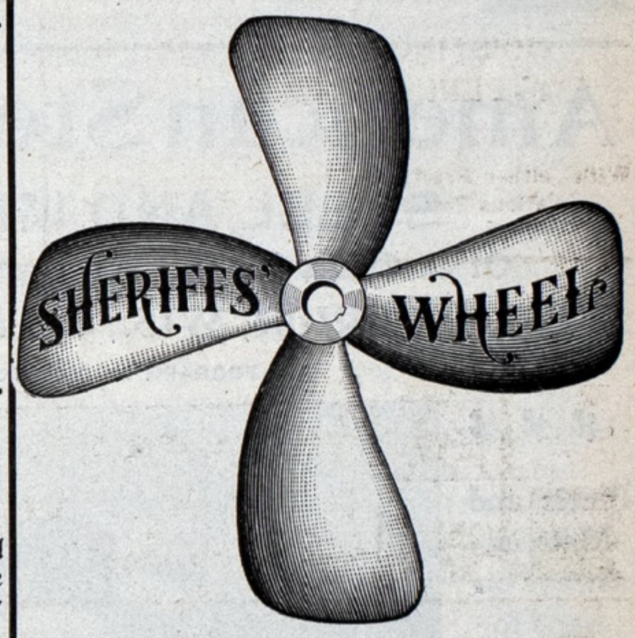

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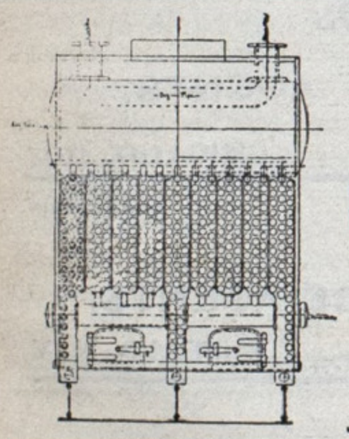

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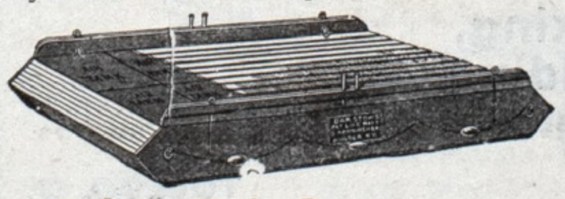

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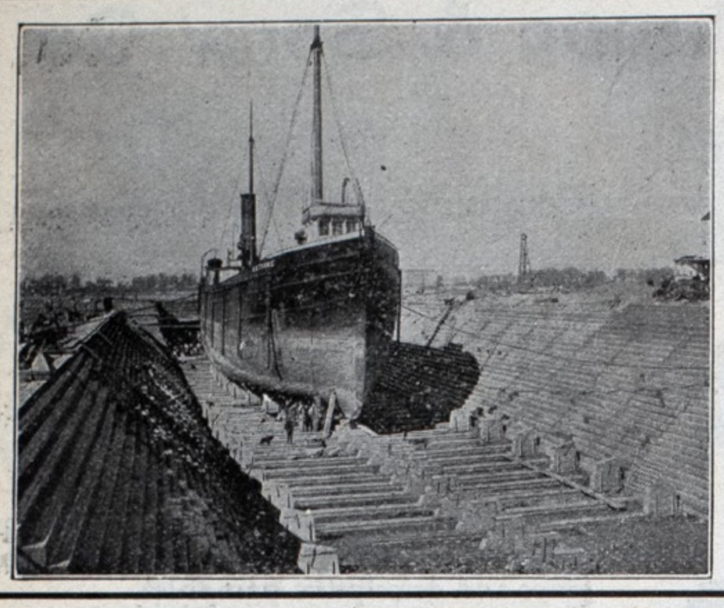

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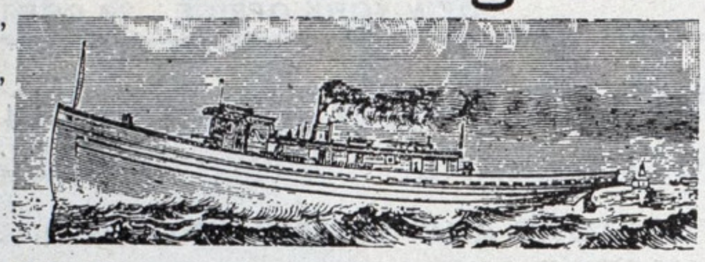

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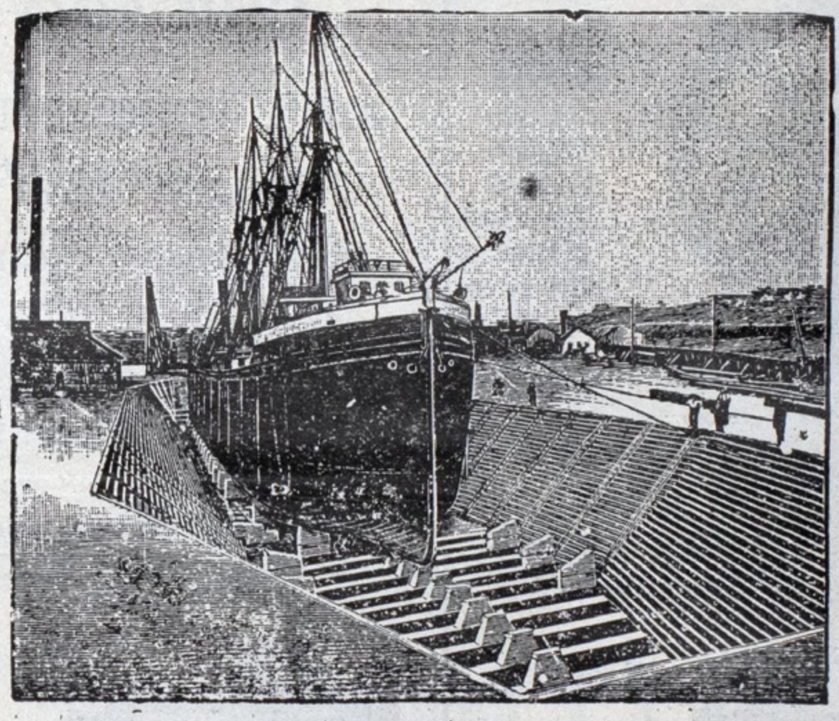

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